

**CARDIAC RHYTHM MANAGEMENT SYSTEM SYNCHRONIZING
ATRIAL SHOCK TO VENTRICULAR DEPOLARIZATION BASED ON
SENSING REFRACTORY**

Abstract

A cardiac rhythm management system synchronizes the delivery of an atrial defibrillation shock to a ventricular depolarization concluding a present RR interval since the occurrence of the last ventricular depolarization. The present RR interval is deemed "shockable" if, among other things, its ventricular refractory period (VRP), which may be extended by ventricular "noise" occurring during the VRP, is less than a predetermined value, which may be different depending on whether the VRP is initiated by a paced or sensed ventricular depolarization. Alternatively, the present RR interval is deemed shockable if a post-VRP time period before the ventricular depolarization concluding the present RR interval exceeds a predetermined value. In conjunction with one or both of these conditions, other requirements for deeming a present RR interval shockable include comparing the present RR interval duration to a predetermined value, or to a preceding RR or QT interval.

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